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ABSTRACT OF THE DISCLOSURE

A poly(arylene ether) polymer includes polymer repeat units of the following structure:

$$-(O-Ar_1-O-Ar_2-O-)_m-(-O-Ar_3-O-Ar_4-O)_n-$$

- where Ar_1 , Ar_2 , Ar_3 , and Ar_4 are identical or different aryl radicals, m is 0 to 1, n is 1-m, and at least one of the aryl radicals is grafted to at least one unsaturated group that is non-aromatic and is adapted to crosslink at a curing temperature below 200°C without producing volatiles during curing and without providing functional groups after curing. Cured films containing the polymer can have a Tg from 160°C to 180°C, a dielectric constant below 2.7 with frequency independence, and a maximum moisture absorption of less than 0.17 wt%. Accordingly, the polymer is especially useful in interlayer dieletrics and in die-attach adhesives.
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